

WHAT IS CLAIMED IS:

1. A method for generating a financial report indicative of estimated turbine maintenance costs, said method comprising:

receiving, at a database, turbine operational history data and turbine inspection data from a user for a pre-identified turbine;

receiving, at the database, turbine replacement part costs, turbine part repair costs, and vendor service costs associated with the pre-identified turbine;

inputting a pre-determined turbine operational forecast into the database;

analyzing turbine maintenance information including at least one of turbine operational history data, turbine inspection data, replacement part costs, part repair costs, vendor service costs, and turbine operational forecast; and

automatically generating a financial report including at least one schedule of turbine maintenance events and costs associated with each event based on the turbine maintenance information analysis.

2. A method in accordance with Claim 1 wherein said receiving turbine replacement part costs, turbine part repair costs, and vendor service costs associated with the identified turbine comprises receiving turbine replacement part costs, turbine part repair costs, and vendor service costs associated with the identified turbine from an on-line catalog selected based on the turbine identification.

3. A method in accordance with Claim 1 wherein said automatically generating a financial report further comprises:

determining turbine maintenance event contingency fees;

determining customer cost discount level for replacement parts and vendor fees.

4. A method in accordance with Claim 1 wherein automatically generating a financial report comprises computing a schedule for maintenance events based on at least one of estimated life of replacement parts, estimated life of repaired parts, turbine operational history, turbine operational forecast and a predetermined maintenance event interval.

5. A method in accordance with Claim 4 wherein said computing a schedule for maintenance events comprises determining a part repair cycle.

6. A method in accordance with Claim 1 further comprising:

inputting an age of a plurality of parts installed in the turbine;

inputting an age of the turbine parts in inventory;

determining, from the schedule of maintenance events, the age of each of the plurality of installed parts and the age of each of the plurality of inventory parts at each maintenance event; and

displaying an identification of each part whose age at each scheduled maintenance event exceeds a predetermined age.

7. A method in accordance with Claim 6 wherein the identification of the turbine includes a frame size and a combustion type, said method comprising:

accessing a predetermined on-line catalog using the frame size and combustion type, the catalog including new parts costs, parts repair costs, and part expected life; and

recommending an inspection interval and an estimate of remaining parts life based on the inputted gas turbine frame size and combustion type.

8. A method in accordance with Claim 1 wherein the turbine is one of a plurality of turbines in a fleet of turbines, said method further comprising:

automatically computing a projected rotation of turbine parts through a fleet of turbines;

removing selected parts from an inventory;

repairing the turbine using the selected parts;

automatically ordering replacement parts for purchase ; and

replenishing the clients' inventory using the replacement parts.

9. A method in accordance with Claim 1 further comprising automatically computing the financial charges accrued during the maintenance event using the turbine replacement part costs, the turbine part repair costs, and the vendor service costs associated with the maintenance event.

10. A network based system for maintaining at least one component, said system comprising:

a client system;

a centralized database for storing information;

a server system configured to be coupled to said client system and said database, said server system further configured to:

receive, at a database, component operational history data and component inspection data from a user for a pre-identified component;

receive, at the database, component replacement part costs, component part repair costs, and vendor service costs associated with the pre-identified component;

prompt a user to input a pre-determined component operational forecast into the database;

analyze component maintenance information including at least one of component operational history data, component inspection data, replacement part costs, part repair costs, vendor service costs, and component operational forecast; and

automatically generate a financial report including at least one schedule of component maintenance events and costs associated with each event based on the component maintenance information analysis.

11. A network based system in accordance with Claim 10 wherein said server system is configured to receive component replacement part costs, component part repair costs, and vendor service costs associated with the identified component from an on-line catalog selected based on the component identification.

12. A network based system in accordance with Claim 10 wherein said server system is configured to:

determine component maintenance event contingency fees;

determine customer cost discount level for replacement parts and vendor fees.

13. A network based system in accordance with Claim 10 wherein said server system is configured to compute a schedule for maintenance events based on at least one of estimated life of replacement parts, estimated life of repaired parts, component operational history, component operational forecast and a predetermined maintenance event interval.

14. A network based system in accordance with Claim 13 wherein said server system is configured to determine a part repair cycle.

15. A network based system in accordance with Claim 10 wherein said server system is configured to:

prompt a user to input an age of a plurality of parts installed in the component;

prompt a user to input an age of the component parts in inventory;

determine, from the schedule of maintenance events, the age of each of the plurality of installed parts and the age of each of the plurality of inventory parts at each maintenance event; and

display an identification of each part whose age at each scheduled maintenance event exceeds a predetermined age.

16. A network based system in accordance with Claim 15 wherein the identification of the component includes a frame size and a combustion type, said server system is configured to:

access a predetermined on-line catalog using the frame size and combustion type, the catalog including new parts costs, parts repair costs, and part expected life; and

recommend an inspection interval and an estimate of remaining parts life based on the inputted gas component frame size and combustion type.

17. A network based system in accordance with Claim 10 wherein the component is one of a plurality of components in a fleet of components, said server system is configured to:

automatically compute a projected rotation of component parts through a fleet of components;

remove selected parts from an inventory;

repair the component using the selected parts;

automatically orders replacement parts for purchase; and

replenish the inventory using the replacement parts.

18. A network based system in accordance with Claim 10 wherein said server system is configured to automatically compute the financial charges

accrued during the maintenance event using the component replacement part costs, the component part repair costs, and the vendor service costs associated with the maintenance event.

19. A computer program embodied on a computer readable medium for maintaining at least one component, said program comprising a code segment that receives, at a database, component operational history data and component inspection data from a user for a pre-identified component and then:

receives, at the database, component replacement part costs, component part repair costs, and vendor service costs associated with the pre-identified component;

prompts a user to input a pre-determined component operational forecast into the database;

analyzes component maintenance information including at least one of component operational history data, component inspection data, replacement part costs, part repair costs, vendor service costs, and component operational forecast; and

automatically generates a financial report including at least one schedule of component maintenance events and costs associated with each event based on the component maintenance information analysis.

20. A computer program in accordance with Claim 19, said program comprising a code segment that receives component replacement part costs, component part repair costs, and vendor service costs associated with the identified component from an on-line catalog selected based on the component identification.

21. A computer program in accordance with Claim 19, said program comprising a code segment that:

determines component maintenance event contingency fees;

determines customer cost discount level for replacement parts and vendor fees.

22. A computer program in accordance with Claim 19, said program comprising a code segment that computes a schedule for maintenance events based on at least one of estimated life of replacement parts, estimated life of repaired parts, component operational history, component operational forecast and a predetermined maintenance event interval.

23. A computer program in accordance with Claim 22, said program comprising a code segment that determines a part repair cycle.

24. A computer program in accordance with Claim 19, said program comprising a code segment that:

prompts a user to input an age of a plurality of parts installed in the component;

prompts a user to input an age of the component parts in inventory;

determines, from the schedule of maintenance events, the age of each of the plurality of installed parts and the age of each of the plurality of inventory parts at each maintenance event; and

displays an identification of each part whose age at each scheduled maintenance event exceeds a predetermined age.

25. A computer program in accordance with Claim 24, said program comprising a code segment that:

accesses a predetermined on-line catalog using the component frame size and combustion type, the catalog including new parts costs, parts repair costs, and part expected life; and

recommends an inspection interval and an estimate of remaining parts life based on the inputted gas component frame size and combustion type.

26. A computer program in accordance with Claim 19 wherein the component is one of a plurality of components in a fleet of components, said program comprising a code segment that:

automatically computes a projected rotation of component parts through a fleet of components;

removes selected parts from an inventory;

repairs the component using the selected parts;

automatically orders replacement parts for purchase; and

replenishes the inventory using the replacement parts.

27. A computer program in accordance with Claim 19 wherein said server system is configured to automatically compute the financial charges accrued during the maintenance event using the component replacement part costs, the component part repair costs, and the vendor service costs associated with the maintenance event.